

PUB-NO: DE019909390C1

DOCUMENT-IDENTIFIER: **DE 19909390 C1**

TITLE: **Laser** powder deposition **head**, useful for tool
or component coating or repair, rapid prototyping
or rapid tooling processes, has a radially symmetrical
flow calming channel arrangement between a **swirl**
chamber and an annular outlet gap

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INVENTOR-INFORMATION:

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INT-CL (IPC): B23K026/34

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ABSTRACT:

CHG DATE=20010403 STATUS=N>A **laser** powder deposition **head**, has a radially symmetrical arrangement of flow calming channels (2) between a powder/gas **swirl** chamber (1) and an annular outlet gap (14). A **laser** processing **head** has a radially symmetrical arrangement of cylindrical calming channels (2)

which are parallel to the **laser** beam longitudinal axis and which are located between a powder/gas stream **swirl** chamber (1) and an annular gap (14) forming a coaxial hollow jet directed onto a workpiece surface. An Independent claim is also included for a surface treatment process employing the above **laser** processing **head**.